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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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HAMILTON, BROOK, SMITH & REYNOLDS, P.C.
530 VIRGINIA ROAD
P.O. BOX 9133
CONCORD, MA 01742-9133

EXAMINER	
ALBERTALLI, BRIAN LOUIS	

ART UNIT	PAPER NUMBER
2626	

DATE MAILED: 10/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/044,647	ROSS ET AL.	
	Examiner	Art Unit	
	Brian L. Albertalli	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 August 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The amendments to the claims have been entered. Claims 1, 7, 13, and 19-21 are currently amended.

Response to Arguments

2. Applicant's arguments filed 18 August 2006 regarding the rejection of claim 20 under 35 U.S.C. 101 have been fully considered but they are not persuasive.

While the Examiner recognizes a "computer readable" or "computer usable" signal encoded with computer program instructions may produce a tangible result, current Office policy is that signal claims are ineligible for patent protection because they do not fall within any of the four statutory classes of 35 U.S.C. 101. Therefore, the rejection to claim 20 under 35 U.S.C. 101 is maintained.

The rejection of claims 13-18 under 35 U.S.C. 101 are withdrawn because it is now clear that the claimed "computer program product" is a tangible, physical computer program product (e.g. a cd-rom, floppy disk, or the like) and is thus statutory.

3. The amendment to claim 21 overcomes the rejection made under 35 U.S.C. 112, 2nd paragraph made in the previous Office Action. The rejection is withdrawn.

4. Applicant's arguments regarding the rejections of claims 1-21 under 35 U.S.C. 102(e) have been considered, but in part, are not persuasive.

Specifically, the argument that Wang et al. do not disclose a "speak queue" are not persuasive. While the Applicant argues that a *speak queue*, "includes responses that can be 'spoken' by a text-to-speech device", there is no language in the claims defining a "speak" queue as such. Rather, the claims only require that a *speak queue* retains responses generated by the computer in response to spoken input form the user. Equivalently, Wang et al. disclose base tables, dialog states, and goals are pushed onto stack 609 (column 6, lines 54-61). These base tables, dialog states, and goals are clearly generated "in response to spoken input from the user" (Fig. 1, speech input, column 1, lines 21-26) and are equivalent to the claimed "responses generated by a computer" because they are the response actions executed by the computer to generate prompts (column 8, lines 44-50 and Figs. 11(a)-11(e)).

Applicant's arguments with respect to Wang et al. not supporting interruptions by the user have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, it is noted that Wang et al. do disclose conduction a dialog in a "non-interruptive" manner that does not allow "the audible rendering of a response to interrupt the user" (see all disclosed dialog examples from column 8, line 60 to column 10, line 65; none of the rendering of a response by the computer interrupt the user).

Additionally, upon further consideration, a new ground(s) of rejection is made in view of Wang et al., in view of Marx et al. (U.S. Patent 6,173,266) under 35 U.S.C. 103(a) because it would have been obvious to one of ordinary skill in the art at the time

of invention to modify Wang et al. to allow the user to interrupt the dialog (see rejection under 35 U.S.C. 103(a), below).

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claim 20 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 20 is directed to "a computer program propagated signal product". A claim reciting a signal encoded with functional descriptive material does not fall within any of the categories of patentable subject matter under 35 U.S.C. 101 (i.e. process, machine, manufacture, or composition of matter).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al. (U.S. Patent 6,505,162), in view of Marx et al. (U.S. Patent 6,173,266).

In regard to claims 1, 7, 13, 19, and 20, Wang et al. disclose an interface, method, system and computer program product comprising:

a prioritized speak queue for retaining responses generated by a computer in response to spoken input from the user asynchronously received by the computer through the audio input device (Fig. 6, dialog manager 600 includes stack 609 which retains dialog states for later use, column 6, lines 54-61; based on a response action indicated by the user, column 8, lines 32-43; the user inputs actions through speech, Fig. 1, column 1, lines 21-26; the user enters information corresponding to a plurality of dialog states before the computer responds, therefore the spoken input is "asynchronous", column 9, lines 23-47), the spoken input being interpreted by a reasoning facility which enables the spoken input to include questions by the user (user input U2, column 9, line 60 to column 10, line 2), the computer running multiple applications (Fig. 2, application domains, lines 57-65) and the reasoning facility interpreting the spoken input in a manner that at least one of the applications recognizes the interpreted spoken input (the dialog managers interprets semantic input according to the application domains' external knowledge bases, column 5, lines 1-6);

a dialog manager for placing the generated responses in the prioritized speak queue (Fig. 6, action execution module 604 pushes responses onto stack 609, column 8, lines 32-43); and

a turn manager for managing audible rendering of the responses from the prioritized speak queue through the audio output device (Fig. 6, dialog manager 600 output semantic representations; which are rendered by a speech synthesis module,

Fig. 1, 105, column 1, lines 33-40), the turn manager prioritizing audible rendering of the responses according to rules other than the order in which the responses are added to the prioritized speak queue (the stack 609 is searched for previous dialog states throughout the entire stack and the previous dialog states are returned, column 9, line 65 to column 10, line 12) and according to corresponding contexts in a context priority queue (state history 608 retains a history of the dialog as context for selecting an appropriate response, column 8, lines 9-13) so that the user receives each response as a part of an asynchronous dialog between the computer and the user (the user enters information corresponding to a plurality of dialog states before the computer responds, therefore the spoken input is "asynchronous", column 9, lines 23-47), the turn manager conducting the dialog in a polite non-interruptive manner that is subject to control by the user including allowing the user to change subjects but not allowing the audible rendering of a response to interrupt the user (the computer response apologizes when a request cannot be met, therefore the dialog is "polite", column 9, lines 60-64; the user's input changes the goal of the system state, therefore user's input serves to "change subjects", column 9, line 65 to column 10, line 2; none of the rendering of a response by the computer interrupt the user, see all disclosed dialog examples from column 8, line 60 to column 10, line 65).

Wang et al. do not disclose allowing the user to interrupt the dialog.

Marx et al. disclose a dialog interface, method, system and computer program product that allows a user to interrupt the dialog (barge-in handling allows a user to interrupt output dialog, column 1,1, lines 23-28).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify Wang et al. to allow the user to interrupt the dialog, because this would allow the user to provide responses before the computer's response was completely output, thus saving the user time.

In regard to claim 2, 8, and 14, Wang et al. disclose:

providing speech output including audible renditions of the responses when spoken to by the user (such as answering the user's question, column 9, lines 1-5; the user's input being spoken and the computer's output being audibly rendered, Fig. 1, column 1, lines 27-40);

asking permission of the user before providing speech output based on delayed answers and notifications (the computer asks for the user's permission in dialog state S2-2, column 10, lines 32-33; previously stored answers and notifications from the stack are then popped, column 10, lines 34-52; to provide the delayed answer of dialog state S3-1, column 10, lines 53-56); and

allowing the user to change subject (the user's input changes the goal of the system state, therefore user's input serves to "change subjects", column 9, line 65 to column 10, line 2).

In regard to claims 3, 4, 9, 10, 15, and 16, Wang et al. disclose:

the turn manager provides the audible rendering of responses in a delivery mode subject to control by the user wherein the delivery mode is one of an immediate delivery

mode and a delayed delivery mode (each dialog state has a priority of either immediate delivery, i.e. highest priority, or delayed delivery, i.e. not highest priority, wherein the user's selection of providing information that does not correspond to a system prompt will change the priority of a given dialog state, column 7, line 57 to column 8, line 13).

In regard to claims 5, 11, and 17, Wang et al. disclose the turn manager manages the audible rendering of the responses based on dialog states that specify the current state of the dialog between the computer and the user (Fig. 4, dialog states, column 5, lines 45-53).

In regard to claims 6, 12, and 18, Wang et al. disclose the response is an announcement of an event of interest to the user as determined by the computer (such as the itinerary for the user, column 10, lines 48-56).

In regard to claim 21, Wang et al. disclose a domain model that includes application specific knowledge in an application domain model for external applications (Fig. 2, column 4, lines 57-65).

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian L. Albertalli whose telephone number is (571) 272-

7616. The examiner can normally be reached on Mon - Fri, 8:00 AM - 5:30 PM, every second Fri off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on (571) 272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BLA 10/13/06

DAVID HUDSPETH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600